

09/905037

AMENDMENTS

CLAIMS:

1-30 (Cancelled)

31. (New) A method for topographical patterning, the method comprising the steps of:

- (a) positioning a mask relative to a device, the mask being in the form of a pattern, wherein the mask exposes a surface of the device;
- (b) etching the pattern into a surface of the device to form a feature, wherein said feature includes at least one rounded edge; and
- (c) providing a mating element and connecting said mating element and said feature.

32. (New) The method of claim 31, wherein the feature is formed into the substrate.

33. (New) The method of claim 32, wherein the feature is selected from at least one of a rounded shape, an oval shape, or a square shape.

34. (New) The method of claim 31, wherein the feature is protruding from the substrate.

35. (New) The method of claim 34, wherein the feature is selected from at least one of a rounded shape, an oval shape, or a square shape.

36. (New) The method of claim 31, wherein the rounded edge is an arcuate edge.

37. (New) The method of claim 31, wherein the pattern of the mask is formed with variable spacings to produce the rounded edge.

38. (New) The method of claim 37, wherein the variable spacings in the pattern of the mask are varied to vary the rounded shape.

39. (New) The method of claim 31, wherein the etching step (b) comprises immersing the device within a liquid.

40. (New) The method of claim 31, wherein the etching step (b) comprises spraying a liquid against the surface of the device.

41. (New) The method of claim 31, wherein the etching step (b) comprises exposing the surface of the device to a vapor.

42. (New) The method of claim 31, wherein the etching step (b) comprises exposing the surface of the device to a plasma.

43. (New) The method of claim 31, wherein the etching step (b) comprises directing an ion beam at the surface of the device.

44. (New) The method of claim 31, wherein the device comprises more than one layer and the etching step (b) comprises etching into one or more of the layers.

45. (New) A method for topographical patterning of a MEMS device, the method comprising the steps of:

- (a) etching a pattern into a surface of the MEMS device to form a feature, wherein said feature includes at least one rounded edge; and
- (b) providing a mating element; and
- (c) inserting the mating element into the feature, wherein the rounded edge reduces damage to the feature.

46. (New) The method of claim 45, wherein the feature is formed into the substrate.

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46. (New) The method of claim 32, wherein the feature is selected from at least one of a rounded shape, an oval shape, or a square shape.

R.D. 48

47. (New) The method of claim 31, wherein the feature is protruding from the substrate.

R.D. 49

48. (New) The method of claim 34, wherein the feature is selected from at least one of a rounded shape, an oval shape, or a square shape.

R.D. 50

49. (New) The method of claim 31, wherein the rounded edge is an arcuate edge.